The Q1119-FSxxL series are longitudinal (compressional) mode Fused Silica, conduction cooled acousto-optic Q-switches designed for use with polarized DPSS Nd:YLF and Nd:YAG lasers. These devices exhibit very low insertion loss and high damage threshold. All Isomet AO Q-switches benefit from the company’s unparalleled experience in OEM manufacturing, with all key processes maintained in-house. These include optical fabrication, A/R coating and proven high power transducer bonding technology.

Specifications

- **Acoustic Frequency:** 24.0, 27.12, 40.68 or 80.0MHz
- **Interaction Material:** Fused Silica
- **Wavelength:** 1047nm to 1064nm
- **A/R Coating:** < 0.2% / surface
- **Active Aperture, H:** 1.0, 1.5 mm *
- **Clear Aperture:** 4.5mm
- **Acoustic Mode:** Longitudinal (compressional)
- **Rise/Fall time:** 109nsec / mm beam waist
- **Polarization:** Linear
- **Transmission:** > 99.5% (single pass)
- **Cavity Insertion Loss:** > 500MW/cm²
- **Damage Threshold:** > 500MW/cm²
- **RF power:** Up to 7W (max)
- **Diffraction Efficiency:**
  - H=1mm
  - RF = 3W >40% >30%
  - RF = 5W >60% >45%
  - RF = 7W >70% >55%
- **Cooling:** Conduction
- **Input Impedance:** 50 Ohms
- **VSWR:** < 1.2:1

Model Selection:

<table>
<thead>
<tr>
<th>Freq</th>
<th>Active Aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1119 - FS xx</td>
<td>H</td>
</tr>
<tr>
<td>24.0MHz</td>
<td>24</td>
</tr>
<tr>
<td>27.12MHz</td>
<td>27</td>
</tr>
<tr>
<td>40.68MHz</td>
<td>40</td>
</tr>
<tr>
<td>80.0MHz</td>
<td>80</td>
</tr>
</tbody>
</table>

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
ISOMET CORP. 5263 Port Royal Rd, Springfield, VA 22151, USA.
Tel: (703) 321 8301 Fax: (703) 321 8546
E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.
In-house: Crystal Growth,
Optical Polishing,
A/R coating, Vacuum Bonding
Ensure adequate heaksinking through mounting surface, especially at higher RF powers.

Recommended Drive Electronics

- RF Driver with Waveform Generation: AQS1010-FC-x
- RF Driver with Basic Modulation control: RFA910-FC-x

* Please contact Isomet for alternative apertures.